Full Paper	Thematic Section: Biochemical Research.
Reference Object Identifier – ROI: jbc-02/16-46-6-28	Subsection: Peptide Chemistry.

Reference Object Identifier – ROI: jbc-02/16-46-6-28

+Article based on the report at the conference "Modern problems of chemical technology of biologically active substances." D.I. Mendeleev MUCTR. 26.05.2016.

Publication is available for discussion in the framework of the on-line Internet conference "Butlerov readings". http://butlerov.com/readings/ Submitted on June 01, 2016.

Development of the technology of the freeze-dried nanoparticles of antithrombotic heteromerous peptide

© Alexey A. Alexeev,* Maxim I. Bryley, Viacheslav L. Koroley, Dmitry S. Lotorey, and Ludmila A. Pavlova

Laboratory of Development and Pre-Clinical Trials of Medical Products of Institute of Pharmacy of First Moscow State Medical University n.a. I.M. Sechenov. Trubetskaya St., 8/2. Moscow, 119991. Phone: +7 (495) 708-39-71. E-mail: alexeevalexei1991@mail.ru.

Keywords: inhibition of platelet aggregation, imidazo[4,5-e]benzo[1,2-c;3,4-c']difuroxans, heteromerous peptides, nanoparticles.

Abstract

We developed the technology for production the freeze-dried nanoparticles of antithrombotic heteromerous peptide – Fur-Lys-His-Ala-Asp-Asp, «Fur» – carboxymethylimidazo[4,5-e]benzo[1,2-c;3,4c']difuroxan (antiplatelet activity IC₅₀ 1.52 mM). Substance represented the freeze-dried nanoparticles of heteromerous peptide based on a copolymer of lactic and glycolic acids. Nanoparticles are prepared by a double emulsion followed by lyophilization. The size of the resulting nanoparticles: 304.5±4.20 nm.

^{*}Supervising author; *Corresponding author